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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/828,809	04/10/2001	Robert Terneu	31642-167413	8396

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Venable
Post Office Box 34385
Washington, DC 20043-9998

EXAMINER
MARKHAM, WESLEY D

ART UNIT	PAPER NUMBER
1762	5

DATE MAILED: 02/27/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

12-5

Office Action Summary	Application No.	Applicant(s)	
	09/828,809	TERNEU ET AL.	
	Examiner	Art Unit	
	Wesley D Markham	1762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 April 2001* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *29-76* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *29-76* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☒ Certified copies of the priority documents have been received in Application No. *08/660,755* .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *2* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Acknowledgement is made of applicant's preliminary amendment A, filed as paper #3 on April 10, 2001, in which Claims 2 – 28 were canceled, and continuity data was inserted into the specification of the instant application; and applicant's preliminary amendment B, filed as paper #4 on April 10, 2001, in which Claim 1 was canceled, Claims 29 – 76 were added, the title of the invention was amended, and the abstract of the disclosure was changed. Claims 29 – 76 are currently pending in U.S. Application Serial No. 09/828,809, and an Office Action on the merits follows.

Priority

1. Acknowledgement is made of the applicant's incorporation of the phrase, "This is a division of Application Serial No. 09/170,063 filed October 13, 1998, which is a Composite Continuation of Application Serial No. 08/660,755 filed June 10, 1996 (now abandoned) and Application Serial No. 08/660,756 filed June 10, 1996 (now abandoned)" into the specification as per preliminary amendment A, filed on April 10, 2001. However, the examiner is unaware of the terminology "Composite Continuation" as used by the applicant. After examining the specifications of each of the aforementioned applications, it appears to the examiner that the instant application (i.e., 09/828,809) is a division of Application Serial No. 09/170,063, which is a Continuation-in-Part of Application Serial No. 08/660,755 and a Continuation-in-Part of Application Serial No. 08/660,756. Therefore, the instant application has been treated as such. Correspondingly, the applicant is suggested to amend the

continuity data in the specification to read, "This application is a division of U.S. Application Serial No. 09/170,063 filed October 13, 1998 (now U.S. Patent No. 6,231,971), which is a Continuation-in-Part of U.S. Application Serial No. 08/660,755 filed June 10, 1996 (now abandoned) and a Continuation-in-Part of U.S. Application Serial No. 08/660,756 filed June 10, 1996 (now abandoned)." Appropriate correction is required.

Specification

2. The disclosure is objected to because of the following informality.
    - Page 15, line 19 – The phrase, "The coatings can be formed inside the lehr which follows the glass ribbon forming..." contains a typographical error (i.e., "lehr").

Appropriate correction is required.

Claim Objections

3. Claims 37 – 38 and 62 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Specifically, the limitation that the tin/antimony oxide coating layer has a Sb/Sn molar ratio of at least 0.03 (Claim 37) or an Sb/Sn molar ratio of at least 0.05 (Claim 38) does not further limit independent Claim 29, which recites that the Sb/Sn molar

ratio ranges from 0.01 to 0.5 (i.e., the independent Claim 29 puts an upper limit on the Sb/Sn molar ratio while dependent Claims 37 – 38 do not). In addition, Claim 62 recites the limitation that the Sb/Sn molar ratio is at least 0.05, which does not further limit independent Claim 53, which requires that the Sb/Sn molar ratio has an upper limit of 0.5.

4. Claim 55 is objected to because of the following informality. The phrase, "causing the gaseous reactant mixture from the first nozzle from the first nozzle to be brought into the presence..." in Claim 55 contains a typographical error. The applicant is suggested to amend the phrase to read, "causing the gaseous reactant mixture from the first nozzle to be brought into the presence..." Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 29 – 52, 61, 69, and 73 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Regarding Claim 29 (from which Claims 30 – 52 depend) and Claim 61, the limitation that the glazing panel has a luminous transmittance of "less than 70%" is new matter.

Regarding Claims 45 and 69, the limitation that the glazing panel has a luminous transmittance of "less than 69%" is new matter. Specifically, the applicant's specification/disclosure as filed has support for luminous transmittance values of less than 65% (see page 12, lines 17 – 20 of the applicant's specification), but not luminous transmittance values of "less than 70%" or "less than 69%". Regarding Claims 49 and 73, the limitation that the glazing panel is a "monolithic glazing panel" does not have support in the applicant's specification/disclosure as filed and is therefore new matter.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 36 and 60 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
9. Specifically, the term "low-emissivity" in Claims 36 and 60 is a relative term which renders the claims indefinite. The term "low-emissivity" is not defined by the claims, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. In particular, it is unclear what range of emissivity values a coating layer must possess to be considered a "low-emissivity" coating.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

11. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

12. Claims 29 – 31, 37 – 40, 43 – 47, 50, 53 – 55, 61 – 64, 67 – 71, and 74 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kavka (CS 239788 B1) in view of Kalbskopf et al. (USPN 4,294,868).

13. Regarding independent Claims 29 and 53, Kavka teaches a method of manufacturing a glazing panel comprised of a vitreous substrate and a tin/antimony oxide coating layer provided on the vitreous substrate and having a Sb/Sn molar ratio ranging from 0.01 to 0.5, preferably from 0.03 to 0.5, the method comprising the steps of providing reactants which comprise tin and antimony compounds which

are present in an amount effective to form the tin/antimony oxide coating layer, and forming the tin/antimony oxide coating layer on the vitreous substrate from the reactants to provide a glazing panel having a luminous transmittance (TL) of less than 70% (Abstract, page 2, and Example 3). Specifically, Kavka teaches that the substrate is glass (i.e., a "vitreous substrate"), that a layer of tin oxide containing 6% of antimony is formed on the glass (i.e., the Sb/Sn molar ratio is approximately 0.06), and that the transmission in the visible part of the spectrum is 63 – 70% (i.e., the luminous transmittance is less than 70%) (See Example 3). Kavka also teaches that the doped tin oxide coatings are utilized in the production of sheet glass for windows and other glass areas of buildings (i.e., in the production of "glazing panels") (page 2, paragraphs 3 – 4). Kavka does not explicitly teach that (1) the tin and antimony compound reactants are in the gaseous phase, and (2) the coating is formed pyrolytically. Kavka does teach that the reactants are sprayed onto a sheet of glass that is heated to a high temperature, e.g., 560° C (Example). Kavka also suggests that doped tin oxide coatings can be deposited by utilizing reactants in the gaseous phase (page 2, paragraph 5). Kalbskopf et al. teach that, in the art of depositing antimony-doped tin oxide coatings on a glass substrate, it was known at the time of the applicant's invention to deposit antimony-doped tin oxide coatings pyrolytically by utilizing tin and antimony compound reactants in the gaseous phase (Col.1, lines 6 – 46, Col.3, lines 5 – 12 and 31 – 43, Col.5, Col.6, lines 26 – 54, Col.9, lines 51 – 68, Col.10, lines 1 – 45, and Figure 1b). Kalbskopf et al. also teach that this coating method has the advantages of making it possible to carry out the

coating at a very high speed, producing a layer of excellent homogeneity, and guaranteeing a very high performance level with respect to mechanical qualities, electrical qualities, and optical qualities of all kinds (Col.4, lines 22 – 28). Therefore, it would have been obvious to one of ordinary skill in the art to utilize the method of Kalbskopf et al. (i.e., pyrolytically depositing the coating from gaseous tin and antimony compound reactants) to deposit the antimony-doped tin oxide layer of Kavka with the reasonable expectation of (1) success, as Kalbskopf et al. teach that such a method is possible, and (2) obtaining the benefits of utilizing the coating method of Kalbskopf et al., such as carrying out the coating at a very high speed, producing a layer of excellent homogeneity, and guaranteeing a very high performance level with respect to mechanical qualities, electrical qualities, and optical qualities of all kinds. In addition, Kavka does not explicitly teach that the glazing panel produced has a solar factor of less than 70%. However, "solar factor" as defined by the applicant is the ratio of the sum of the total energy directly transmitted through a substrate and the energy which is absorbed and re-radiated on the side away from the energy source as a proportion of the total radiant energy incident on the substrate (page 5, lines 3 – 6 of the applicant's specification). Kavka also notes that the coating deposited in his invention has a high reflectivity (60 – 70%) of radiant energy in the wavelength region of 5 to 12 μm (Example 3). This suggests a low solar factor. Therefore, as the combination of Kavka and Kalbskopf et al. teaches all the process steps/limitations of the applicant's claims, unless essential process steps/limitations are missing from the applicant's claims, the

coating of Kavka would have inherently had a solar factor of less than 70%. In addition, please note that Kavka does explicitly teach that his coating has luminous transmittance values within the range claimed by the applicant, which would have inherently correlated to solar factor values of less than 70% as claimed by the applicant (See Buffat et al. (USPN 5,657,149), which teaches that the solar factor value is necessarily linked to the luminous transmittance value (Col.1, lines 6 – 51)).

14. The combination of Kavka and Kalbskopf et al. also teaches all the limitations of Claims 30 – 31, 37 – 40, 43 – 47, 50, 54 – 55, 61 – 64, 67 – 71, and 74 as set forth above in paragraph 13 and below, including a method wherein / further comprising:

- Claims 30 and 54 – The reactants in the gaseous phase comprise a gaseous reactant mixture, and the tin/antimony oxide coating layer is formed on the substrate by bringing the gaseous reactant mixture comprising a source of antimony and a source of tin into the presence of a heated source of oxygen (see Figure 1b and corresponding description, Col.6, Col.9, lines 46 – 68, and Col.10, lines 1 – 55 of Kalbskopf et al.)
- Claims 31 and 55 – The steps of mixing the reactants in the gaseous phase to provide a gaseous reactant mixture, feeding the gaseous reactant mixture to a first nozzle, feeding superheated water vapor to a second nozzle, and causing the gaseous reactant mixture from the first nozzle to be brought into the presence of the superheated water vapor from the second nozzle to form the tin/antimony oxide coating layer (see Figure 1b and corresponding description, Col.6, Col.9, lines 46 – 68, and

Col.10, lines 1 – 55 of Kalbskopf et al.). Please note that the water vapor is transported to the nozzle at a temperature of about 110° C (i.e., it is "superheated") (Col.6, lines 1 – 36, and Col.10, lines 10 – 15).

- Claims 37 – 40 and 62 – 64 – The coating layer has a Sb/Sn ratio of at least 0.03, preferably at least 0.05, preferably ranging from 0.05 to 0.15, preferably ranging from 0.03 to 0.09 (Example 3 of Kavka).
- Claims 43 – 44 and 67 – 68 – The glazing panel has a solar factor of less than 60%, preferably less than 50%. While not explicitly taught by Kavka, the solar factor of the coating inherently has the values claimed by the applicant (see paragraph 13 above).
- Claims 45 – 46, 61, and 69 – 70 – The glazing panel has a luminous transmittance of less than 70%, preferably less than 69%, preferably ranging from 40 to 65%. Specifically, Kavka teaches that the luminous transmittance is from 63 – 70% (Example 3).
- Claims 47 and 71 – The substrate is a clear sheet of glass (Example 3 of Kavka).
- Claims 50 and 74 – The tin/antimony oxide coating layer is an exposed coating layer. Specifically, Kavka does not teach that the tin/antimony oxide coating layer is further coated or covered (i.e., it is "exposed").

15. Claims 32 – 34 and 56 – 58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kavka (CS 239788 B1) in view of Kalbskopf et al. (USPN

4,294,868), and in further view of either Terneu et al.(1) (GB 2 234 264 B) or Porter (EP 0 174 727 A1).

16. The combination of Kavka and Kalbskopf et al. teaches all the limitations of Claims 32 – 34 and 56 – 58 as set forth in paragraph 13 above, except for a method further comprising depositing at least one intermediate coating layer (haze reducing or antireflection) between the substrate and the tin/antimony oxide coating layer, the intermediate coating layer being comprised of one of SiO_2 or SiO_x. Both Terneu et al.(1) and Porter teach that, in the art of depositing doped tin oxide coating layers on glass substrates, it was known at the time of the applicant's invention to deposit a silicon oxide intermediate coating layer between the glass substrate and the doped tin oxide coating layer in order to prevent haze from forming in the coating (page 1 of Terneu et al.(1), and pages 1 and 3 of Porter). Therefore, it would have been obvious to one of ordinary skill in the art to deposit a silicon oxide haze-reducing intermediate coating layer between the glass substrate and the antimony-doped tin oxide coating layer of Kavka with the reasonable expectation of successfully preventing the coating / coated substrate of Kavka from developing haze.

17. Claims 35 – 36 and 59 – 60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kavka (CS 239788 B1) in view of Kalbskopf et al. (USPN 4,294,868), and in further view of Terneu et al.(2) (GB 2 274 115 A).

18. The combination of Kavka and Kalbskopf et al. teaches all the limitations of Claims 35 – 36 and 59 – 60 as set forth in paragraph 13 above, except for a method further

comprising the step of depositing at least one additional ("low emissivity") coating layer comprised of tin oxide doped with fluorine (from gaseous reactants) on the tin/antimony oxide coating layer. However, it is the object of Kavka to produce a coated glass sheet with so-called heat reflective layers (i.e., high reflectivity in the infrared part of the spectrum) (page 2, paragraphs 2 – 4). Terneu et al.(2) teach that it was known in the art of depositing doped tin oxide coating layers on glass substrates for the purpose of reflecting infrared radiation (i.e., the same objective as Kavka) at the time of the applicant's invention to utilize either a single coating or a multi-layer coating of materials such as tin oxide doped with fluorine and tin oxide doped with antimony (page 1, page 14, and page 15, lines 1 – 8). The reactants are in the gaseous phase (pages 14 – 15). Therefore, it would have been obvious to one of ordinary skill in the art to deposit at least one additional ("low emissivity") coating layer comprised of tin oxide doped with fluorine (from gaseous reactants) on the tin/antimony oxide coating layer of Kavka with the reasonable expectation of success (i.e., successfully depositing an IR-reflecting coating material (as desired by both Kavka and Terneu et al.(2)) that can be utilized either in a single layer coating (as taught by both Kavka and Terneu et al.(2)) or a multi-layer coating (as taught by Terneu et al.(2))). Please note that a fluorine-doped tin oxide coating is a "low emissivity" coating (See, for example, Thomas et al. (USPN 4,968,563), Col.2, lines 26 – 39).

19. Claims 41 – 42, 48, 65 – 66, and 72 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kavka (CS 239788 B1) in view of Kalbskopf et al. (USPN 4,294,868), and in further view of Terneu et al.(3) (USPN 4,900,634).

20. The combination of Kavka and Kalbskopf et al. teaches all the limitations of Claims 41 – 42 and 65 – 66 as set forth in paragraph 13 above, except for a method wherein the tin/antimony oxide coating layer has a thickness ranging from 100 to 500 nm, preferably from 250 to 450 nm. Specifically, Kavka is silent as to the thickness of the coating layer. However, Kavka does suggest that coatings with a thickness on the order of hundreds of nanometers are operable (page 2, paragraph 3). Terneu et al.(3) teach that, in the art of depositing doped tin oxide coatings on glass substrates for the purposes of reflecting IR-radiation (i.e., the same objective as Kavka), the coatings preferably have a thickness of from 400 nm to 500 nm in order to balance factors such as internal haze, emissivity, and coloration (Col.1, lines 5 – 57, and Col.6, lines 16 – 36). Therefore, it would have been obvious to one of ordinary skill in the art to deposit the coating layer of Kavka to a thickness of 400 nm to 500 nm (i.e., in the range claimed by the applicant) as taught by Terneu et al.(3) with the reasonable expectation of (1) success, as both Kavka and Terneu et al.(3) teach that such coating thickness values are operable, and (2) obtaining the benefit of balancing factors such as internal haze, emissivity, and coloration as taught by Terneu et al.(3).

21. The combination of Kavka and Kalbskopf et al. teaches all the limitations of Claims 48 and 72 as set forth in paragraph 13 above, except for a method wherein the

substrate is a colored sheet of glass. Specifically, Kavka teaches glass substrates in general, including window glass for buildings (page 2, paragraph 4, and Example 3). Terneu et al.(3) teach that in the art of coating glass with doped tin oxide coating layers, it is beneficial in some embodiments to use colored glass in order to reduce glare, thereby providing comfort to the user (Col.8, lines 18 – 30). Therefore, it would have been obvious to one of ordinary skill in the art to utilize a colored glass substrate in the process of Kavka with the reasonable expectation of successfully reducing the glare of the finished coated glass product and providing comfort to the user.

22. Claims 49 and 73 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kavka (CS 239788 B1) in view of Kalbskopf et al. (USPN 4,294,868), and in further view of Beaufays et al. (USPN 5,573,839).

23. The combination of Kavka and Kalbskopf et al. teaches all the limitations of Claims 49 and 73 as set forth in paragraph 13 above, except for a method wherein the glazing panel is a monolithic glazing panel. However, Kavka suggests the production of window glass for buildings in general (page 2, paragraph 4). Beaufays et al. teach that one example of window glass for buildings is a monolithic glazing pane (Col.1, lines 10 – 30). Therefore, it would have been obvious to one of ordinary skill in the art to perform the method of Kavka and Kalbskopf et al. in order to produce a monolithic glazing pane with the reasonable expectation of success

(i.e., choosing a specific example of a window glass pane (i.e., a monolithic glazing pane) from the broad genus of glass substrates / window glass taught by Kavka).

24. Claims 51 – 52 and 75 – 76 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kavka (CS 239788 B1) in view of Kalbskopf et al. (USPN 4,294,868), and in further view of Toyonaga et al. (USPN 4,859,496).

25. The combination of Kavka and Kalbskopf et al. teaches all the limitations of Claims 51 – 52 and 75 – 76 as set forth in paragraph 13 above, except for a method wherein the reactants for forming the tin/antimony oxide coating layer comprise monobutyl trichloro tin (MBTC) and an organo antimony compound. Specifically, both Kavka and Kalbskopf et al. teach $SnCl_4$ as the tin compound reactant and either $SbCl_3$ or $SbCl_5$ as the antimony compound reactant (Example 3 of Kavka, and Col.10 of Kalbskopf et al.). Toyonaga et al. teach the functional equivalence of the tin and antimony compounds taught by Kavka and Kalbskopf et al. (i.e., $SnCl_4$, $SbCl_3$, and $SbCl_5$) and MBTC and organo antimony compounds, respectively, in the process of depositing a doped tin oxide film (Col.8, lines 65 – 68, and Col.9, lines 1 – 13 and 30 – 37). Therefore, it would have been obvious to one of ordinary skill in the art to utilize MBTC and an organo antimony compound as the tin and antimony gaseous phase reactants in the process of Kavka and Kalbskopf et al. with the reasonable expectation of similar results.

Conclusion

26. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wesley D Markham whose telephone number is (703) 308-7557. The examiner can normally be reached on Monday - Friday, 8:00 AM to 4:30 PM.

27. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive Beck can be reached on (703) 308-2333. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

28. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Wesley D Markham
Examiner
Art Unit 1762

WDM
February 23, 2002

SHRIVE P. BECK
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700